

Applicants: Kevin V. Gray
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AMENDMENTS TO THE DRAWINGS:

Attached to this Amendment are nine (9) sheets of formal drawings. No new matter has been added to the drawings. The outstanding objections to the drawings are addressed in the Remarks/Argument beginning on page 11 of this paper.

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REMARKS/ARGUMENTS

In the Office Action dated April 6, 2005, the Examiner rejected Claims 1-2, 7, 10, 14, 21 and 24-25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,598,915 (Malmberg) in view of U.S. Patent No. 5,307,993 (Simonetti). The Examiner rejected Claims 3-6 under 35 U.S.C. §103(a) as being unpatentable over Malmberg in view of Simonetti, and further in view of JP 09038596. The Examiner rejected Claim 12 under 35 U.S.C. §103(a) as being unpatentable over Malmberg in view of Simonetti, and further in view of U.S. Patent No. 4,955,209 (Smith). The Examiner rejected Claims 1, 10, 15 and 24 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards to the invention. The Examiner objected to Claims 1, 2 and 9 as including certain informalities. The Examiner also objected to the specification as including certain informalities. Finally, the Examiner objected to the drawings as not showing every feature of the invention specified in the claims, and requested corrected drawings for Figures 2-4 and 6-7.

Initially, Applicant notes with appreciation the Examiner's indication that Claims 8-9, 11, 13, 15-20 and 22-23 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

In response to the Office Action, Applicant has traversed the outstanding §103(a) rejections of the claims. Claims 1, 10, 15 and 24 have been amended to obviate the outstanding §112, second paragraph, rejections thereof. Claims 1-2 and 9 have been amended to obviate the Examiner's outstanding objections to such claims. The specification has been amended to obviate the Examiner's objections thereto. Finally, Applicant has filed

herewith a set of formal drawings to address the Examiner's request for corrected drawings, and has addressed each of the Examiner's objections to the drawings herein. Claims 1-25 remain in the application for purposes of continued prosecution.

The Examiner rejected Claims 1-2, 7, 10, 14, 21 and 24-25 under 35 U.S.C. §103(a) as being unpatentable over Malmberg in view of Simonetti. In this regard, the Examiner states that:

Malmbert (sic) et al. discloses a conveyor belt washer for cleaning a moving conveyor belt (5) with a pressurized fluid, the belt (5) having opposing planar surfaces, the washer comprising an enclosed washtank (1) sized and configured to allow the belt (5) to movably pass therethrough, at least one spray assembly (11) located within the washtank (1) and positioned adjacent one of the opposing planar surfaces (please read column 2, lines 22-28), at least one spray head (12) being rotatably mounted with respect to the washtank (1), a pair of splash plates (any two sides of 15 in Figure 1) defining a substantially planar splash surface mounted within the washtank (1) and positioned adjacent the opposing planar surfaces (see Figure 1), wherein the pressurized fluid passing through the belt is continuously redirected against the opposing planar surfaces upon contact with the splash surface as the spray head (12) is rotated, wherein the spray assembly (11) provides gravity-based drainage thereof through the spray heads (12) upon disconnection of the pressurized fluid. Malmbert (sic) also discloses the splash plate (15) including a groove (please read column 2, lines 29-37) wherein the splash surface is located within the groove, wherein the opposing planar surfaces of the belt (5) is supported by a plurality of tracks (6), wherein a leading edge (see Figure 2) of the washtank (1) has a slot (see Figure 1) for passage of the belt (5) therethrough to allow the belt (5) to enter the washtank (1) and a trailing edge (see Figure 2) having a slot sized for passage of the belt (5) therethrough to allow the belt to exit the washtank (please read column 2, lines 14-16), a bottom portion of the washtank (1) being angled (see Figure 1) to facilitate the collection and drainage of the pressurized fluid and each spray head having at least one nozzle.

Malmberg et al. as disclosed above, fails to show the spray head being rotatable through a circular path having a predetermined diameter D, a spin axis Y, the spray heads being positioned $\frac{1}{2}$ the distance of the diameter D, fluid bars extending between the spray heads and the spin axis Y, a bearing located on the spin axis Y, a connection port and a circular groove.

Simonetti et al. does disclose a spray head (32) being rotatable through a circular path having a predetermined diameter D and being positioned $\frac{1}{2}$ the distance of the D, a spin axis Y, fluid bars (16), a bearing (14 or the topmost portion above 14 in Figure 1) and a connection port (18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Malmberg's spray head arrangement with that of Simonetti's spray head arrangement in order to provide for a relatively wider cleaning area of the belt per spray head and the rotary motion of each spray head also allows for the cleaning agent to impinge any dirt on the belt from different directions thereby allowing for the detachment of the dirt to be more easily accomplished. It also would have been obvious to one having ordinary skill in the art at the time the invention was made to provide for the splash plate to have a circular groove in order to provide for a variety of shapes depending on the user's need.

Applicant respectfully traverses the foregoing rejection of the claims. The Malmberg reference cited by the Examiner discloses a conveyor belt washer including a stand 1, a tank 2, a spray head 11, and a fan 4. A conveyor belt 5 travels through the stand 1 along an upper belt path on rails 6. Belt 5 travels in the opposite direction through stand 1 along a lower belt path on rails 7. In the lower belt path, belt 5 passes between upper compartment 8 and lower compartment 9 of tank 2. Spray head 11 is mounted in the stand 1 above belt 5 in its upper belt path. Spray head 11 extends over the full width of belt 5 in its upper belt path and has a plurality of nozzles 12 communicating with the interior of spray head 11 and directed towards an upper side of belt 5 in its upper belt path. The top side of upper compartment 8 is covered

by a filter screen 17. In operation, water is recirculated by a pump 24 through pipings 28 such that high-pressure water jets are directed towards belt 5 in its upper belt path to mechanically clean belt 5. The relatively tight filter screen 17 dissipates a major part of the energy of the water jets and prevents the water from bouncing off the bottom of the upper compartments 8. The captured water is then directed into lower compartment 9, whereby it passes through outlet opening 16 and is taken up by pump 24. It is to be noted that lower compartment 9 of the tank 2 is completely closed except for outlet opening 16.

The Examiner contends that Malmberg discloses all of the features of independent Claims 1, 24 and 25 except for the spray head being rotatable through a circular path having a predetermined diameter, a spin axis Y, the spray heads being positioned $\frac{1}{2}$ the distance of the diameter D, fluid bars extending between the spray heads and the spin axis Y, a bearing located on the spin axis Y, a connection port and a circular groove. Before turning to the secondary Simonetti reference, Applicant respectfully submits that Malmberg also fails to disclose 1) a washtank sized and configured to allow the belt to movably pass therethrough; 2) at least one spray assembly located within the washtank; 3) the spray head being rotatably mounted with respect to the tank; and 4) at least one splash plate defining a substantially planar splash surface mounted within the washtank and positioned adjacent the second planar surface, the splash surface being sized to substantially correspond with the circular path of the rotatable spray head wherein the pressurized fluid passing through the belt is continuously redirected against the second planar surface upon contact with the splash surface as the spray head is rotated.

As discussed hereinabove, and as described in the cited Malmberg reference, the belt washer of Malmberg includes washtank 2 having upper compartment 8 and lower compartment 9. Belt 5 passes above tank 2 along its upper path, and passes between upper compartment 8 and lower compartment 9 along its lower path. Contrary to the Examiner's statement, belt 5 of Malmberg does not pass through washtank 2. In this regard, it is to be noted that independent Claims 1, 24 and 25 define the washtank as being a "substantially enclosed container."

Next, the Malmberg reference does not disclose at least one spray assembly located within the washtank. It is clear from a review of the Malmberg specification, and accompanying drawings, that spray head 11 is positioned outside of tank 2 at a location above upper compartment 8. Thus, contrary to the Examiner's argument, spray head 11 is not located within washtank 2.

The Malmberg reference also fails to disclose that the spray head is rotatably mounted with respect to the tank. In this regard, Malmberg discloses that pump 24 directs high-pressure water jets through nozzles 12 of spray head 11. Spray head 11 is formed from a pipe extending across the width of conveyor belt 5. There is absolutely no disclosure within Malmberg that nozzles 12 are rotatably mounted with respect to tank 2.

Finally, Malmberg does not disclose the recited splash plate, which defines a substantially planar splash surface mounted within the washtank and positioned adjacent the second planar surface. More particularly, Malmberg does not disclose that the splash surface is sized to substantially correspond with the circular path of the rotatable spray head wherein

the pressurized fluid passing through the belt is continuously redirected against the second planar surface upon contact with the splash surface as the spray head is rotated.

The Examiner's reference to fan outlet 15 of Malmberg as meeting the recited splash plate limitation is not understood. As disclosed in Malmberg, fan outlet 15 extends over the width of the conveyor belt and is positioned after the spray head 11 in the direction of travel of conveyor belt 5 in its upper path. Fan outlet 15 is clearly not located within the washtank, it is not positioned adjacent the second planar surface, and it is not sized to substantially correspond with the circular path of the rotatable spray head wherein the pressurized fluid passing through the belt is continuously redirected against the second planar surface upon contact with the splash surface as the spray head is rotated. In this regard, it is to be noted that Malmberg teaches at column 3, lines 7-10 that screen 17 (which covers upper compartment 8) "dissipates a major part of the energy of the water jets and prevents the water from bouncing off the bottom of the upper compartment 8." Thus, the disclosed Malmberg structure does not provide for cleaning of the bottom surface of the belt, and particularly does not provide for pressurized fluid being redirected against the second planar surface upon contact with a splash surface.

Inasmuch as the Examiner's proposed combination of references fails to disclose at least four limitations of independent Claims 1, 24 and 25, it is respectfully submitted that the Examiner has failed to set forth a prima facie case of obviousness with respect to such claims. Accordingly, the §103(a) rejection of independent Claims 1, 24 and 25 is improper, and should be withdrawn.

The Examiner also relies upon the secondary Simonetti reference in support of the outstanding §103(a) rejection of independent Claims 1, 24 and 25,. Simonetti is directed to a rotary sprinkler for attachment to the end of a garden hose. The Examiner states that Simonetti discloses a spray head (32) being rotatable through a circular path having a predetermined diameter D and being positioned $\frac{1}{2}$ the distance of diameter D, a spin axis Y, fluid bars 16, a bearing (14 of the top most portion of belt 14 in Figure 1) and a connection port 18. The Examiner concludes that it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Malmberg's spray head arrangement with that of Simonetti's spray head arrangement in order to provide for a relatively wider cleaning area of the belt per spray head and the rotary motion of each spray head also allows for the cleaning agent to impinge any dirt on the belt in different directions thereby allowing for the detachment of the dirt to be more easily accomplished. The Examiner further argues that it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide for the splash plate to have a circular groove in order to provide for a variety of shapes depending the user's need. With respect to this latter statement, it is to be noted that (by the Examiner's own admission) neither of the cited references disclose a circular groove.

In *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998), the CAFC reiterated in detail the law relating to obviousness. The Court noted that virtually all inventions are combinations of old elements, and that therefore an Examiner may often find every element of the claimed invention in the prior art. *Id.* at 1357. In this regard, the CAFC stated that:

If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blue-print for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be “an illogical and inappropriate process by which to determine patentability.”

Id. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *In re Kotzab*, 55 USPQ2d 1316 (Fed. Cir. 2000). The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved. Whether the Examiner relies on an express or an implicit showing, it must provide particular findings related thereto. *See Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617. Conclusory statements standing alone are not “evidence.” *Id.*

Here, the Examiner has not shown the required motivation, suggestion or teaching of the desirability of making the specific combination set forth in the pending claims. More particularly, the Examiner has failed to set forth “particular findings” to substantiate the proposed combination of the Malmberg and Simonetti references. There can be no doubt but that the teaching used by the Examiner to combine the cited references in the proposed manner was gleaned from the present specification. In fact, because the spray head 11 of Malmberg is not mounted within washtank 2, the substitution of a rotatable spray head for the disclosed spray head of Malmberg would likely result in excessive and undesirable spray

from the proposed combination, thus teaching away from this combination. In sum, there is simply no teaching, other than in the present specification, for one skilled in the art to combine the Malmberg and Simonetti references in the manner suggested by the Examiner.

As noted hereinabove, the Examiner has failed to set forth a prima facie case of obviousness with respect to independent Claims 1, 24 and 25. Accordingly, the §103(a) rejection of such claims is improper, and should be withdrawn. Inasmuch as it is believed that independent Claim 1 defines over the prior art, Claims 2-23, which depend therefrom, are also believed to define over the prior art. Accordingly, the outstanding rejections of such claims should also be withdrawn.

Next, the Examiner rejected Claims 1, 10, 15 and 24 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In this regard, the Examiner states that:

Claims 1 and 24 recite the limitation "the other of said opposing planar". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites "wherein said opposing planar surface of said belt is supported by a plurality of tracks". It is unclear as to which opposing surface the Applicant is referring to. Did the Applicant intend to claim both planar surfaces? Further clarification is required.

Claim 15 recites "...said drip edge being set back a distance X in a direction towards said trailing edge". The recitation appears to be confusing. It seems a thought the leading edge forming a drip edge would be set forward from the trailing edge. Further clarification is required.

With respect to Claims 1, 10 and 24, Applicant has amended such claims to more particularly define the planar surfaces of the belt. It is respectfully submitted that the

amendment of such claims obviates the outstanding §112, second paragraph, rejections thereof. With respect to the rejection of Claim 15, Applicant has amended such claim to change "distance X" to "distance Z" to agree with lines 16-17 of page 11 of the specification. Again, it is submitted that the amendment of Claim 15 obviates the outstanding §112, second paragraph, rejection thereof.

Next, Claims 1, 2 and 9 have been amended to address the Examiner's objections to such claims. The specification has also been amended to address the Examiner's objections thereto.

Finally, Applicant has submitted a set of formal drawings to address the Examiner's request for corrected figures 2-4 and 6-7. No new matter had been added to the drawings. The Examiner also objected to the drawings under 37 C.F.R. §1.83(a) as failing to show every feature of the invention specified in the claims. Particularly, the Examiner asserts that the drawings fail to disclose 1) the spray heads being positioned at various angles; 2) the circular groove with respect to the opposing planes; 3) the drainage opening; 4) the drip edge; 5) the distance X; and 6) the pair of spray bars within the rear compartment.

Turning first to objection 1, Applicant respectfully traverses this objection to the drawings. The specification provides at page 8, lines 9-11 that each spray head includes at least one nozzle 46, the nozzles being mounted at varying angles with respect to planar surface 16 to ensure that the pressurized fluid directed thereagainst forms a continuous path. Nozzles 46 are clearly shown in the drawings. Inasmuch as it is well established that patent drawings need not be drawn to scale, the description set forth in the specification regarding nozzles 46, together with the depiction of nozzles 46 in the drawings, provides an adequate

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description of this claimed feature. It is therefore respectfully submitted that objection 1 to the drawings should be withdrawn.

Applicant also transverses objection 2 to the drawings. In this regard, Figures 5a and 6 both depict groove 58. Accordingly, the objection to the drawing based on this feature should also be withdrawn.

With respect to objection 3, Claim 13 has been amended to delete the term "drainage opening".

Applicant also respectfully transverses objection 4 to the drawings. In this regard, the Examiner is referred to page 11, lines 16-20 which states that wall portion 68 forms a drip edge whereby fluid directed upwards off of planar surface 16 contacts wall portion 68 and drains downward therealong. Accordingly, the drip edge feature recited in the claims is shown in the drawings. The objection to the drawing based on this feature should therefore be withdrawn.

With respect to objection 5, Claim 15 has been amended to recite a distance Z, which is shown in Figure 5c.

Finally, Applicant respectfully transverses objection 6 to the drawings. In this regard, the pair of spray bars within the rear compartment is described at page 12, lines 6-8, and shown in Figures 1, 2 and 5b. It is therefore respectfully submitted that the objection to the drawings based on this feature be withdrawn.

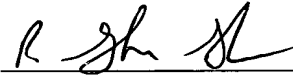
In view of the amendments to the claims, together with the remarks forth above, it is respectfully submitted that the present application is, in all conditions, complete and in

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condition for allowance. Accordingly, reconsideration and allowance of the pending claims is respectfully solicited.

In the event that the Examiner has any questions concerning this Amendment, he is invited to contact the undersigned attorney.

Respectfully submitted,



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